(19) World Intellectual Property Organization

Organization
International Bureau



(43) International Publication Date 29 September 2005 (29.09.2005)

PCT

(10) International Publication Number WO 2005/091171 A1

(51) International Patent Classification7:

G06F 17/30

(21) International Application Number:

PCT/KR2004/003346

(22) International Filing Date:

17 December 2004 (17.12.2004)

(25) Filing Language:

Korean

(26) Publication Language:

English

(30) Priority Data:

10-2004-0019533 10-2004-0047611 23 March 2004 (23.03.2004) KR 24 June 2004 (24.06.2004) KR

(71) Applicant (for all designated States except US): ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE [KR/KR]; 161, Gajeong-dong, Yuseong-gu, Daejon 305-350 (KR).

(72) Inventors; and

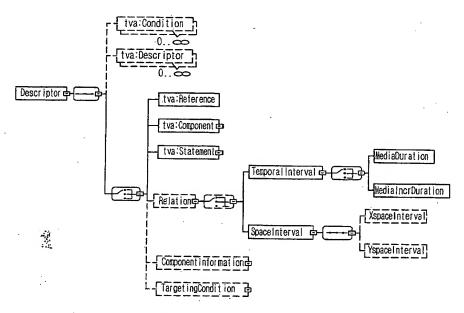
(75) Inventors/Applicants (for US only): LEE, Hee-kyung [KR/KR]; #202-1403 Bora Apt. Samcheon-dong Seo-gu, Daejon 302-745 (KR). KIM, Jae-Gon [KR/KR]; #203-402

Sammeori Apt., Dunsan-dong Seo-gu, Daejon 302-120 (KR). KANG, Jung-Won [KR/KR]; 451-6 Mia 5-dong Gangbuk-gu, Seoul 142-805 (KR). CHOI, Jin-Soo [KR/KR]; #402, 306-1 Jangdae-dong Yuseong-gu, Daejon 305-308 (KR). KIM, Jin-Woong [KR/KR]; #305-1603 Expo Apt. Jeonmin-dong Yuseong-gu, Daejon 305-761 (KR).

- (74) Agent: SHINSUNG PATENT FIRM; 2F, Line Bldg., 823-30, Yeoksam-dong, Kangnam-ku, Seoul 135-080 (KR).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: ENHANCED MODEL OF RELATION WITH QUANTITATIVE REPRESENTATION, AND TV ANYTIME SERVICE METHOD SERVICE METHOD AND SYSTEM EMPOLYING THE SAME.



(57) Abstract: The present invention relates to a relation model, and more particular to an enhanced model of relation with a quantitative representation in a TV-Anytime service, a TV-Anytime service system employing the same and a TV-Anytime service method thereof. The TV-Anytime service system employing an enhanced quantitative representation uses a temporal relation metadata having a quantitative representation for describing a time order of consuming components and a spatial relation metadata for describing a related location of a user interface.

005/091171 A1

WO 2005/091171 A1



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.